State of California
AIR RESOURCES BOARD

AN INTRODUCTION TO THE CALIFORNIA AIR CONSERVATION PROGRAM AND THE FEDERAL PREVENTION OF SIGNIFICANT DETERIORATION PROGRAM

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CALIFORNIA AIR CONSERVATION PROGRAM

A Look at ACP

"To keep clean air areas clean" is one way to describe the purpose of the Air Conservation Program (ACP). The ACP is an air quality program on which the Air Resources Board (ARB) is presently working. The public needs to be involved in developing the ACP to assure the program accomplishes what it should and in an acceptable way.

While the ACP is to be a statewide program, it focuses on the state's rural areas and gives the greatest air quality protection to areas with recognized scenic and other natural resource values (e.g., national parks, and wilderness areas). Keeping the air clean will result in maintaining the public enjoyment of these areas. As part of the work on the ACP, ARB is holding a series of workshops and public meetings this fall throughout California. The workshops and public meetings will help people understand the basic ideas behind the program, allow the staff to hear people's ideas about the kind of program California should have, and give the public an opportunity to testify on whether specific areas (e.g., Humboldt Redwoods State Park) should receive special air quality protection.

The ACP responds to the need for a program to maintain clean air in California and to meet the federal mandate to develop a Prevention of Significant Deterioration (PSD) State Implementation Plan revision.

In 1977, Congress passed major amendments to the Clean Air Act which included for the first time a specific description of the PSD program in federal law (prior to this date the federal program was based on a court decision). In addition, Congress placed all national parks and wilderness areas in Class I, the classification allowing the least amount of additional pollution. At the same time, all other areas in California were designated Class II. No Class III areas were created. The state, by following specific requirements, can redesignate areas from Class II to Class I or from Class II to Class III.

In understanding the PSD program it helps to remember that the purpose is to "prevent significant deterioration" of air quality. Because the word "significant" can be defined differently in various situations, the challenge is to define significant deterioration adequately for different situations. In the PSD program, the amount of deterioration determined to be significant is based on the natural resource values of the area. For areas with outstanding resource values, such as Yosemite National Park, a very small increase in air pollution is considered significant. In other areas, larger increases in pollution can occur before there is significant deterioration. By defining "significant deterioration" in this way, Congress established three classes (I, II, and III), each of which allows only a specific amount of increased air pollution. For

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Total Suspended Particulate (TSP), for example, Congress allowed the increase in pollution over a baseline in Class I areas to be an amount equal to approximately 7% of the National Ambient Air Quality Standard (annual standard). For Class II areas, the allowable increase amounts to approximately 25% of the National Ambient Air Quality Standard.

To make sure pollution does not increase in any PSD area beyond the "increment" (specific amount of additional pollution allowed), all new major stationary sources of pollution and modifications to major sources must be reviewed prior to receiving a construction permit. The agency giving the construction permit must be satisfied after reviewing engineering evaluations and air quality impact analyses that the pollution source under review, after putting on the best available pollution control equipment, will not increase the pollution in the area beyond the amount defined by the increment. If a source can meet this criteria, the construction permit will be given.

The federal PSD program is now being carried out in California by the EPA. One reason the ARB is working to put together a program for California is to transfer to the local air pollution control districts the authority to grant PSD permits to new pollution sources so that EPA will no longer be granting the PSD permits.

As stated earlier, the staff will be having statewide workshops and public meetings on the ACP this fall. The workshops' staff will explain the federal PSD program to the public and will ask for public ideas on how the California ACP should be structured. The public meetings, which will be held at the same place and days of the workshops, are for the purpose of taking testimony on whether 30 areas being considered for redesignation from Class II to Class I should be redesignated by the Board. The Board is expected to take up the question of area redesignation at public hearings next spring. Based on the results of the meetings, staff reports, and public testimony, the ARB will decide which areas actually will be redesignated. From the map on page 3 you can see the areas which will be considered for redesignation. The Board will make a decision on each area individually and will also consider the cumulative effect of the area redesignations.

As with all air quality planning efforts, informed public participation is vital to the ACP's success. Therefore, we hope this overview will assist you in understanding the basic goals of the ACP and give you a better basis for participating in the workshops. The rest of this pamphlet describes in greater detail the operation of the federal program and also presents some concerns that the ARB has with that program.

The following answers some of the most frequently asked questions about the PSD program to give you a better idea of what PSD is all about.

Question: What are the major ideas in the federal Prevention of Significant Deterioration program?

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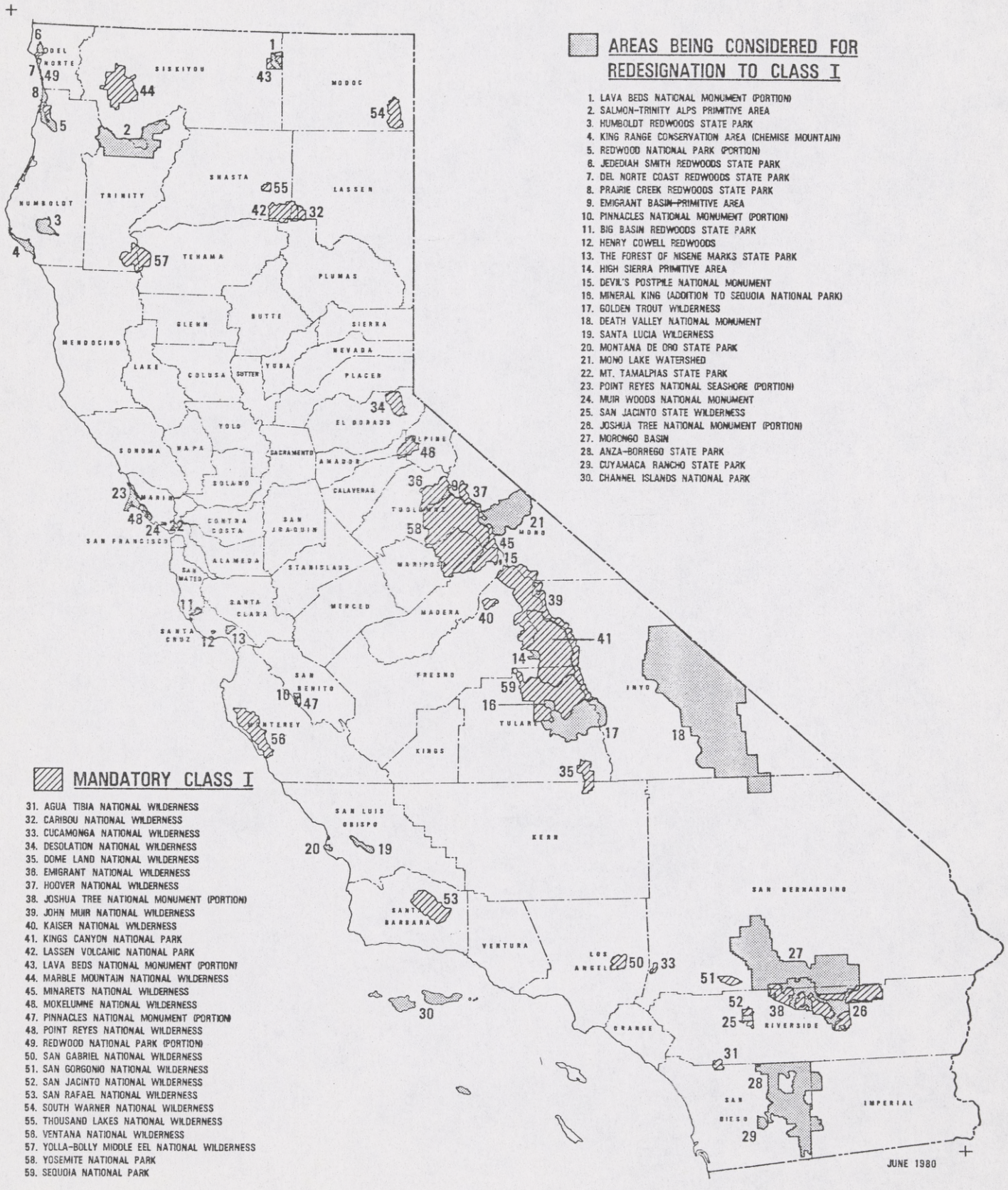

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Answer: To prevent significant deterioration of air quality in clean air areas, by identifying how much deterioration is significant for each area through a classification system (Class I, II, or III). Significant deterioration is to be prevented by regulating major modifications or new sources of pollution so they do not cause the deterioration levels specified for each class to be exceeded.

Question: Does PSD apply to the entire state?

Answer: Yes. All areas of the state are currently attaining at least one of the National Ambient Air Quality Standards, therefore PSD applies to the entire state, even in areas that may be nonattainment for ozone.

Queston: How did the ARB decide which areas will be proposed for redesignation to Class I?

Answer: The area near you which has been proposed for redesignation to Class I is most likely an identifiable unit of public land (such as a national monument or state park). Several of these public land areas, however, have privately owned lands within their boundaries. Redesignating public lands to Class I ensures preserving their air quality and completes the protection of those areas by complementing previous decisions to protect their environmental and cultural values. There are also areas of privately owned lands not previously established as separate identifiable units being proposed for redesignation at the request of local government or citizens. The areas proposed for consideration to be redesignated were selected on the basis of the following general criteria:

1. Areas with inherent natural resource values worthy of protection -- air quality being one such resource.

2. State parks and state wilderness areas which are relatively large or located near existing or other proposed Class I areas.

3. Lands which, when combined with existing or proposed Class I areas, would form a logical unit for air quality protection.

4. Lands for which a specific request has been submitted to the ARB by a local government or by petition of local citizens.

5. Areas which received support for redesignation at previously held public workshops.

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No areas are, at this time, being recommended for redesignation to Class III; however, proposals will be considered if a local governing body representing a majority of the residents of the area submits a formal request to the ARB. In addition to the procedural requirements for redesignating areas to Class I, redesignating areas to Class III requires approval by the Governor after consulting with appropriate committees of the Legislature. The proposed redesignation also needs to be approved formally by those local government agencies representing a majority of the residents in the area to be redesignated.

Question: How does the federal PSD program actually protect the air?

Answer: The PSD program is based on the idea that further pollution in clean air areas should be limited to a specific quantifiable amount. Congress felt the most equitable way to do this would be to identify these quantifiable amounts of additional pollution without regard to the existing air quality in the area. Therefore, each area with the same classification (Class I, II, or III) is allowed to deteriorate the same amount. The only limitation placed on the amount of deterioration is that the health based national ambient air quality standards cannot be exceeded.

The amount of increased pollution which is allowed in any classified area is called an "increment", and the increment concept is central to PSD. If an industry wishes to locate or expand its facilities, it must show that whatever additional pollution the new or expanded facility generates will not exceed the increment for the area's classification. These increments differ for each pollutant. Increments control very specifically the amount of pollution which is allowed in an area.

Figure 1 illustrates how increments work. The dark blocked out areas refer to the baseline air quality, which is the amount of pollution that exists in an area at the time an industry applies for a PSD permit. (The two dark blocks refer to two different geographical areas.) The height of the blocks indicates the amount of existing pollution in the area. The area's classification determines the size of the increment blocks that can be added to the existing pollution to determine the total amount of allowable pollution. Only one of these increment blocks applies to an area. For illustrative purposes, both these areas are Class II areas. It would first be necessary to determine how much additional pollution this industry would add to the surrounding air, if it wishes to locate in either of these areas. This additional pollution is indicated by the light shading. In both cases, the industry generates the same amount of additional pollu-

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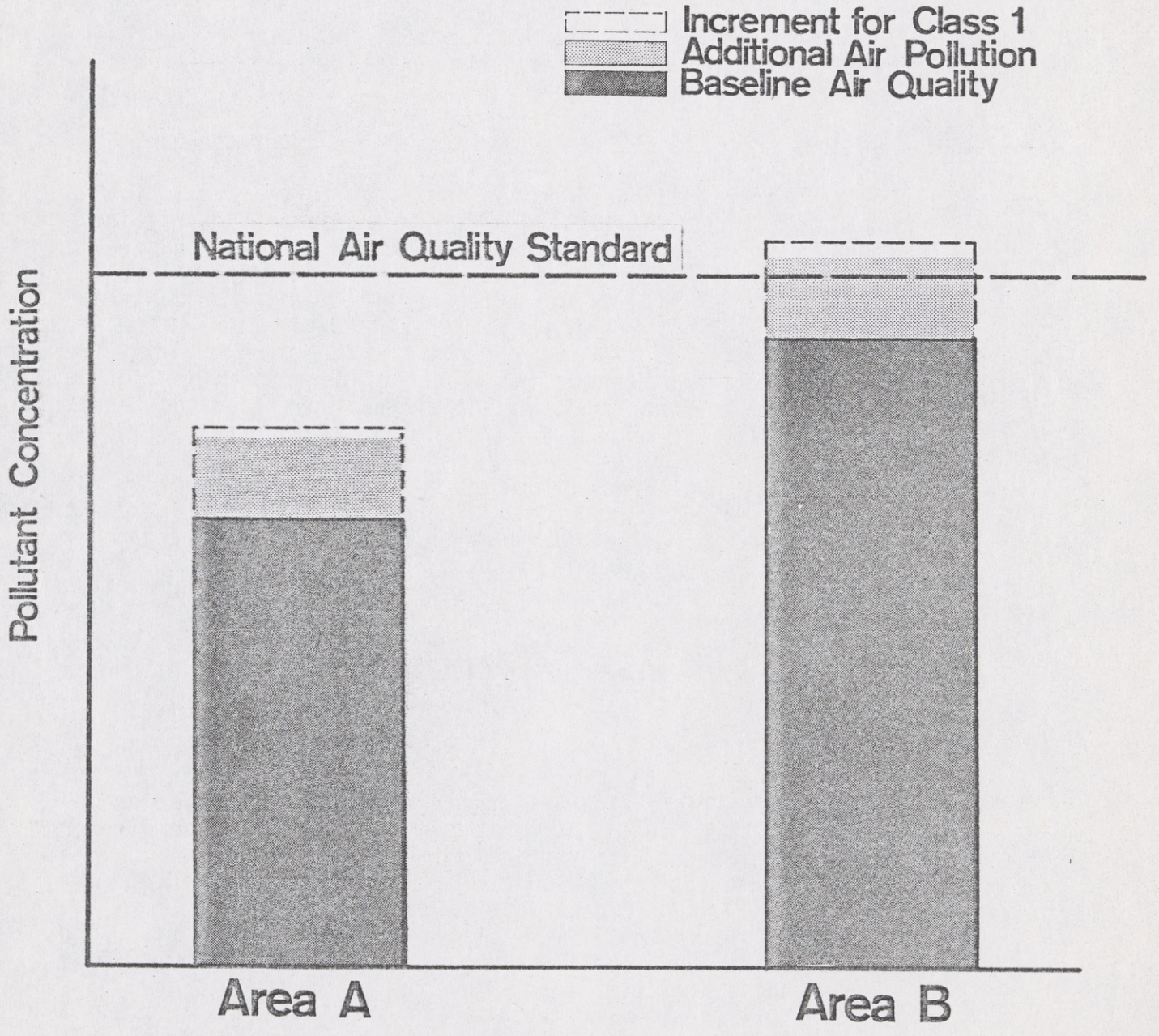
Figure 1



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tion. This pollution is within the allowable increment level in both areas, but in Area B this additional pollution would cause the surrounding air to exceed the health based air quality standards. Therefore, the industry would be allowed to locate in Area A, but not in Area B.

In brief, this is how the increment system works. In principle it is a simple idea. The complexity comes from the work required to carry out the various steps. For example, each of the various pollutants has different increments, the existing level of pollution needs to be determined, and the amount of additional pollution which any new industry adds has to be mathematically estimated.

Question: How does PSD affect industry?

Answer: This is not an easy question to answer, but we can give you some of it. If an industry wishes to create a new or modify an existing source of pollution, it must obtain a permit prior to construction (called the preconstruction permit review process). Some proposed sources are exempt from the PSD permit process because they emit a relatively small amount of pollution. If a proposed source is required to obtain a permit, the industry must first determine the existing level of air quality in the area it wants to locate. If the information does not exist, the industry must monitor the air to determine the existing level of pollution. The industry also must agree to use what EPA determines is the most effective air pollution control devices generally available nationwide. In some cases more effective control equipment may be available to allow the source to pollute less. Presently EPA, for PSD purposes, makes the decision rather than the local air pollution control districts in California.

The long range impact of the federal PSD program on industry is more difficult to assess. In already polluted areas, more stringent air quality programs require industry to install the most effective equipment available to limit pollution. Industries may begin moving to clean areas to reduce costs. Without a PSD program that also requires the most effective available pollution control equipment for industry locating in clean air areas, industry would have an economic incentive to move to and pollute clean areas.

Question: Since the federal government has already developed the PSD program, why doesn't the ARB simply use this program as a model for the state?

Answer: ARB staff has looked carefully at the federal PSD regulations, and has some serious concerns with them. Our concerns are not with the intent and purposes of PSD, but rather that some of

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these purposes may not be met if the program is implemented as described in the federal regulations. The program is complicated to operate and may have unintended negative consequences.

We have put our concerns in the form of questions. Unlike the previous questions in this pamphlet, these questions are presented without answers but with points to consider. These questions will provide the basis for small group discussions that will be a part of the workshops to be held in your area. Through the small group discussions at the workshop, we hope to get your opinions and ideas that will allow us to improve upon the federal program. Our concerns include:

1. What level of control should be required of sources subject to PSD regulations?

   CONSIDERATIONS:

   Currently federal regulations require BACT for sources in PSD areas while Lowest Available Emission Rate (LAER) is required of sources in nonattainment areas. The Federal BACT controls provide for less effective control of emissions than LAER. There are fears that without a requirement for the most effective emissions controls the clean air areas will be subject to substantial deterioration by major sources. In addition, the difference between emission control requirements in PSD areas and nonattainment areas creates an air quality program-related economic incentive to relocate to clean rural areas.

2. What size of source should be subject to review under PSD regulations?

   CONSIDERATIONS:

   Current federal regulations require certain categories of sources over 100 tons/year, i.e. cement plants, kraft pulp plants and all sources over 250 tons/year, large fossil fuel plants to be subject to PSD requirements. Staff is concerned that an area could be significantly deteriorated through the cumulative effect of a series of smaller sources that would not be subject to the PSD requirements.

3. Should offsets be considered/required for new sources locating in PSD areas?

   CONSIDERATIONS:

   Requiring emission offsets in PSD areas would appear to assure that only appropriate deterioration of air quality would occur while protecting clean air areas. We also

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recognize it may not be possible to identify offsets in many clean air areas.

4. Does the system of air quality increments provide sufficient protection of air quality in the clean air areas to meet the Congressional intent?

   CONSIDERATIONS:

   Concerns have been expressed that the PSD program is not so much a prevention program as it is a definition of additional allowable pollution. In addition to the potential for direct impact of additional pollution on an area, it should be noted that as pollution continues to increase long range/long term problems such as regional visibility deterioration (haze) and acid rain may increase. There are also fears that the increment system is technically not defensible since the levels of air quality represented by baseline plus increments constitute a new set of de facto air quality standards that are not directly supported by any criteria documents.

5. Does the federal system of air quality increments lead to a potential for "no growth areas"?

   CONSIDERATIONS:

   With the present system of a first-come-first-served allocation of increment, and for that matter, with any fixed increment system, there is the possibility that a large capital intensive facility (e.g., fossil-fueled power plant) would use all the available increment for a large area. The potential for a more appropriate local resource-based industry or labor intensive industries to locate in an area would be foregone under the "winner-take-all" increment system and the area would be in a no-growth situation.

6. Is the present PSD permitting process with its requirements for air quality monitoring, air quality simulation modeling, and determination of increment consumption unnecessarily complex and time consuming?

   CONSIDERATIONS:

   Our understanding of the manner in which the current PSD permit process operates is that it is complex, and very time consuming. A simpler, less time consuming process that provides for more certainty to industrial concerns while assuring air quality is protected to the maximum degree possible would be a goal for all parties concerned.

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7. What alternatives to the federal system can you suggest that would in a simpler way provide sufficient protection of air quality in the clean air areas to meet the Congressional intent?

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